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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/578,567	05/25/2000	Marilee G. Berry	99PS014/KE	6188

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EXAMINER	
HOYE, MICHAEL W	
ART UNIT	**PAPER NUMBER**
2623	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/578,567	BERRY, MARILEE G.	
	Examiner	Art Unit	
	Michael W. Hoye	2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 May 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *12-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *12-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *16 January 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed on May 21, 2007 with respect to claims 12-22 have been fully considered but they are not persuasive.

As to claim 12, the Applicant argues on page 7 that, "In connection with the "mapping at least one of the plurality of RF channels to the programming signals assigned to the stored digital media, such that the at least one RF channel is configured to transmit multiple programming signals on a single RF channel based on the hardware configuration of the passenger entertainment system, *wherein the RF channels are mapped to the programming signals independent of an equally-distributive relationship between the RF channels and the programming signals*" recitation of independent claim 12, neither Kondo nor Reed teach this aspect of claim 12."

The Applicant also states, beginning on the bottom of page 7, that, "Kondo discloses a system limited to twenty-one video signal providers, digital and analog combined. However, the invention of the present application is not confined to such a technological limitation as in Kondo."

In response, the Examiner respectfully disagrees with the Applicant because Kondo specifically states in col. 6, lines 45-51 that, "Although the above embodiment has digital video signal providers 10A to 10T, an analog video signal provider 11, and a digital audio signal provider 12, any combination of these, based on budget or circumstances, is possible. By using a coaxial cable for which the transmission bandwidth is larger, it is possible to provide additional

channels." Kondo also teaches in col. 6, lines 31-45, and more specifically in lines 36-37 and 40-42 that, "It is ... possible to increase the number of channels easily without any modification of the circuit. ... By changing the compression rate it is possible to change the number of channels for video images without changing the coaxial cable 14."

More specifically, as related to the initial argument above, the Applicant argues in the first full paragraph on page 8 that, "the Kondo reference does not disclose a system wherein "the RF channels are mapped to the programming signals *independent of an equally-distributive relationship between the RF channels and the programming signals*." And at the end of the same paragraph, the Applicant argues that, "Specifically, the Kondo reference does not teach or suggest a system capable of employing differing compression ratios for the various RF channels."

In response, the Examiner respectfully disagrees with the Applicant because Kondo discloses the claimed mapping at least one of the plurality of RF channels to the programming signals assigned to the stored digital media, such that the at least one RF Channel is configured to transmit multiple programming signals on a single RF channel based on the hardware configuration of the passenger entertainment system as met by the video signals a1, a2, etc., as shown in Figs. 1 and 2 (see col. 4, lines 5-44), and more specifically, by digitally compressing the 4 to 6 channels or programming signals (i.e. a1 to a4 or a1 to a6) according to MPEG standards, supplying the signals or channels to a time-division multiplexer 31, which provides a digital signal or channel b1 of 6 Mbps to the RF modulator 32, as shown in Fig. 2, for example, where the RF modulator provides an RF signal or channel c1 which includes the 4 or 6 channels of digital video a1 to a4, or a1 to a6 (see col. 4, lines 5-44 and Figs. 1-2 and 5, also see col. 4,

line 61 – col. 6, line 67). More specifically, the claimed wherein the RF channels are mapped to the programming signals independent of an equally-distributive relationship between the RF channels and the programming signals is met by the digital video providers 10A-10T, where it is possible to easily change the number of channels for the video signals by changing the compression rate for the digital video signals a1, a2, etc. (see Fig. 2 and col. 4, lines 30-44). In this example, each video signal provider 10A to 10T could use a different compression rate thereby providing RF channels that are mapped to the programming signals independent of an equally-distributive relationship between the RF channels and the programming signals. In addition to, Kondo also teaches another "digital media" provider, digital audio provider 10 (see Figs. 1 and 4), which has a number of 32 audio reproducers 51 to 82 and provides compressed digital signals h1 to h32 of 128 Kbps that are supplied to a time-division multiplexer 130 providing a digital signal j of 6 Mbps... (Fig. 4 and col. 4, lines 51-60). Therefore, Kondo discloses the claimed "*wherein the RF channels are mapped to the programming signals independent of an equally-distributive relationship between the RF channels and the programming signals*" as described above, since one digital media signal (i.e. a digital video signal) may be compressed to 1.5 Mbps or 1 Mbps, and another digital media signal (i.e. a digital audio signal) may be compressed 128 Kbps, where both digital media signals are transmitted simultaneously on the RF channels. If the Applicant disagrees with the Examiner, the Examiner respectfully requests the Applicant to provide evidence that both the digital video and digital audio programming signals are always compressed at the same identical compression rate.

The Applicant further in the last paragraph of page 8 that, "the Examiner has cited to no teach in the prior art references of a system having mapped programming signals independent of an equally-distributive relationship between the RF channels and the programming signals..."

In response, the Examiner respectfully disagrees with the Applicant in view of the remarks regarding the Kondo reference made above.

Regarding dependent claims 13-21 and independent claim 22, the Examiner respectfully refers to the relevant remarks made above in response to the Applicant's remarks/arguments on pages 9-11.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 12-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kondo et al (USPN 5,666,151), in view of Reed et al (USPN 6,058,288), both previously cited by the Examiner.

As to claim 12, note the Kondo et al reference which discloses a method of transmitting program signals to a seat of an aircraft (see Fig. 1 and col. 1, lines 8-65), the passenger seat including a seat controller unit and a passenger control unit (see 15A and 16A/33A in Fig. 1), the passenger control unit being configured to allow a passenger to change between a plurality of program channels (see col. 5, line 26 – col. 6, line 30), wherein the program channels are

configured to provide a plurality of programming signals (col. 4, lines 6-44) the plurality of program channels being delivered on one of a plurality of RF channels (col. 4, lines 6-44). Regarding the claimed retrieving a system configuration of a passenger entertainment system, wherein the system configuration is retrievable upon activating the passenger entertainment system; [and] identifying digital media stored in a digital media file server of the passenger entertainment system, such that a programming database is generated, wherein the programming database is configured to assign multiple programming signals to the stored digital media, Kondo et al discloses that it is possible to easily change the number of channels for the video signals by changing the compression rate (col. 4, lines 41-44). Kondo also discloses that the number of analog video signal providers and the number of digital video signal providers may be changed (col. 5, lines 20-25), and in col. 6, lines 36-42, Kondo further discloses that it is accordingly possible to increase the number of [RF] channels easily without any modification of the circuit. However, Kondo et al does not explicitly disclose the claimed "wherein the system configuration is retrievable upon activating the passenger entertainment system; and identifying digital media stored in a digital media file server of the passenger entertainment system, such that a programming database is generated, wherein the programming database is configured to assign multiple programming signals to the stored digital media", as described above. Reed et al teaches retrieving system configuration having a plurality of variable configuration points including media file servers (entertainment servers ("ES") 24, see col. 5, lines 56-65) and video cassette recorders (video tape recorders ("VTR") 54, see col. 6, lines 26-55), where the system configuration is accessible or retrievable at any time, in addition to, the memory stores a dynamic table of the output to input connections and routing paths, and will be updated after

each new connection is made for an output to input selection. Furthermore, the Video Control Unit (VCU 44) provides cabin crew members with the capability to select and monitor the video channels in the system 10...the VCU 44 also provides a flexible data base capability, including both data compilation and data downloading onto a permanent storage medium (see col. 14, lines 23-47; col. 19, lines 21-31; col. 21, lines 57-63; col. 23, lines 21-47 and col. 25, lines 52-63 for additional information related to retrieving system configuration and configuration data points). Therefore, it would have been obvious to one of ordinary skill in the art to have combined the teachings of Kondo et al with Reed et al for the advantage of allowing a user to retrieve and configure a number of media file servers, as well as assign programming signals to the stored digital media through a programming database as desired in an aircraft/passenger entertainment system. One of ordinary skill in the art would have been led to make such a modification since it is well known to those of ordinary skill in the art to be able to configure the number of media file servers, VCRs, and RF channels as desired in an interactive video distribution system through a database configuration arrangement, such as in a cable or satellite TV headend, and/or a passenger/aircraft entertainment system. The claimed mapping at least one of the plurality of RF channels to the programming signals assigned to the stored digital media, such that the at least one RF Channel is configured to transmit multiple programming signals on a single RF channel based on the hardware configuration of the passenger entertainment system is met by the video signals a1, a2, etc., as shown in Figs. 1 and 2 (see col. 4, lines 5-44), and more specifically, by digitally compressing the 4 to 6 channels or programming signals (i.e. a1 to a4 or a1 to a6) according to MPEG standards, supplying the signals or channels to a time-division multiplexer 31, which provides a digital signal or channel b1 of 6 Mbps to the RF modulator 32, as shown in

Fig. 2, for example, where the RF modulator provides an RF signal or channel c1 which includes the 4 or 6 channels of digital video a1 to a4, or a1 to a6 (see col. 4, lines 5-44 and Figs. 1-2 and 5, also see col. 4, line 61 – col. 6, line 67). The claimed wherein the RF channels are mapped to the programming signals independent of an equally-distributive relationship between the RF channels and the programming signals is met by the digital video providers 10A-10T, where it is possible to easily change the number of channels for the video signals by changing the compression rate for the digital video signals a1, a2, etc. (see Fig. 2 and col. 4, lines 30-44). In this example, each video signal provider 10A to 10T could use a different compression rate thereby providing RF channels that are mapped to the programming signals independent of an equally-distributive relationship between the RF channels and the programming signals. In addition to, Kondo also teaches another "digital media" provider, digital audio provider 10 (see Figs. 1 and 4), which has a number of 32 audio reproducers 51 to 82 and provides compressed digital signals h1 to h32 of 128 Kbps that are supplied to a time-division multiplexer 130 providing a digital signal j of 6 Mbps... (Fig. 4 and col. 4, lines 51-60). Therefore, Kondo discloses the claimed "*wherein the RF channels are mapped to the programming signals independent of an equally-distributive relationship between the RF channels and the programming signals*" as described above, since one digital media signal (i.e. a digital video signal) may be compressed to 1.5 Mbps or 1 Mbps, and another digital media signal (i.e. a digital audio signal) may be compressed 128 Kbps, where both digital media signals are transmitted simultaneously on the RF channels. The claimed storing the program channel assignment information in the seat controller unit is met by the Reed et al reference as combined and as previously described in the sections above. The claimed displaying on the passenger control unit

the program channel corresponding to the programming signal, such that the passenger control unit enables a user to toggle between program channels, wherein the RF channels are configured to be mapped independent of an equally-distributive relationship with the programming signals is met by in part by Kondo as described above regarding the FG channels being configured to be mapped independent of an equally-distributive relationship with the programming signals, and where Kondo discloses that a passenger may select a channel through the seat control unit (see 16A and 33A in Fig. 1), and a liquid crystal monitor 28A displays the video for the selected channel (see col. 5, line 26 – col. 6, line 30). More specifically, the Reed et al reference as combined with Kondo above, specifically teaches that the passenger control unit (PCU 16) includes a channel number display and the video display unit (VDU 14) may display the program as well as on screen text such as channel control (see col. 18, lines 21-50).

As to claim 13, the Kondo et al reference discloses the steps of generating display signals from the programming signals; and displaying the display signals corresponding to the program selection as described above in claim 12, as well as in col. 5, line 26 – col. 6, line 30.

As to claim 14, the Kondo et al reference does not explicitly disclose the claimed program selection is changed using up/down channel selection buttons on the passenger control unit and wherein a program channel that is next in sequence to the program channel corresponding to a current program selection is displayed on the passenger control unit in response to an up channel selection and a program channel that is previous in sequence to the program channel corresponding to the current program selection is displayed on the passenger control unit in response to a down channel selection. However, although up/down channel selection buttons on the passenger control unit are not explicitly disclosed in the Kondo et al

reference as described above, channel selection buttons are well known in the art of aircraft or passenger entertainment systems. The Reed et al reference as combined with Kondo et al above specifically teaches a channel number display and a channel up/down control (see PCU 16 in Figs. 1-2), where a program selection is changed using up/down channel selection buttons on the passenger control unit as shown by the passenger control unit (PCU 16) as previously described above in claim 12, and the claimed displaying a program channel that is next in sequence to a current program selection in response to an up channel selection and displaying a program channel that is previous in sequence to a current program selection in response to a down channel selection is inherent to up/down channel selection buttons. Therefore, it would have been obvious to one of ordinary skill in the art to have further combined the audio/video signal providing apparatus and methods of Kondo et al with the additional teachings of the Reed et al reference for the advantage of providing a passenger with an easy to use channel selection interface comprising up/down channel selection buttons.

As to claim 15, the claimed allocating a first plurality of RF channels to carry programming signals from a first device generating NTSC video streams based on the configuration data; and allocating a second plurality of RF channels to carry programming signals from a second device generating MPEG video streams based on the system configuration is met by the sections of the Kondo et al reference as described above, where the claimed first plurality of RF channels... is met by configuring the system for multiple analog video signal providers 11 which each have a bandwidth of 6 MHz that is equal to a typical TV channel and it is well known that a typical analog TV signal in the United States is in NTSC format, and the claimed second plurality of RF channels... is met by configuring the remainder of the system for

multiple digital signal providers 10A, 10B, and so on, where the total number of signal providers is 21 and the digital signal providers, carry video signals compressed by MPEG standards (see col. 6, lines 30-51 and the additional sections and Figures cited above).

As to claim 16, the claimed each of the first plurality of RF channels carries a single NTSC video stream and each of the second plurality of RF channels carries multiple MPEG video streams is met by the Kondo et al reference as described above in claim 15.

As to claim 17, the claimed step of allocating one of the second plurality of RF channels to carry multiple MPEG video streams corresponding to one program channel is also met by the Kondo et al reference as described above in claim 15.

As to claims 18 and 19, the Kondo et al reference and the Reed et al reference do not explicitly disclose a method wherein said one program channel corresponds to a near video-on-demand channel. However, the Examiner takes Official Notice that it is notoriously well known in the art of video distribution systems to incorporate the use of video-on-demand (VOD) systems, or more specifically, near video-on-demand systems for the advantages of providing programming to users on time frame that is more convenient to the user and not just during a single scheduled time, in addition to, a near VOD system requires less equipment and storage capacity as a VOD system since a near VOD system only plays programs at, for example, 15 minute intervals, whereas, a VOD system must be able to transmit a program to various users as any given time which requires much greater system capacity. Furthermore, near VOD systems are well known and used in the headend of video distribution systems. Therefore, it is submitted that it would have been clearly obvious to one of ordinary skill in the art at the time of the invention to incorporate the method of a near VOD program channel for the advantages given

above. Moreover, pertaining to claim 19, it is also well known in the art to transmit multiple MPEG video streams over a RF channel at different start times for a near VOD program channel.

As to claims 20 and 21, the claimed method wherein said one program channel corresponds to a video-on-demand program channel is not explicitly disclosed by the Kondo et al reference. However, the Reed et al reference, as combined with Kondo et al, specifically teaches the use of a video-on-demand program channel as described above in claim 12 (see col. 23, lines 21-47 and col. 25, lines 52-63). Moreover, pertaining to claim 21, it is also well known in the art to transmit multiple MPEG video streams over a RF channel at different start times for a VOD program channel.

As to claim 22, the claimed method of identifying a program channel selection in a passenger entertainment system, the passenger entertainment system having a seat controller unit and a plurality of RF channels for providing a plurality of program channels on each of the RF channels is met by the combination of the Kondo and Reed references as described above in the rejection of claim 12. Regarding the claimed step of "dynamically identifying a hardware configuration of the passenger entertainment system..." is also met by the Reed reference as combined with Kondo, wherein Reed specifically teaches retrieving system configuration having a plurality of variable configuration points including media file servers (entertainment servers ("ES") 24, see col. 5, lines 56-65) and video cassette recorders (video tape recorders ("VTR") 54, see col. 6, lines 26-55), where the system configuration is accessible or retrievable at any time, in addition to, the memory stores a dynamic table of the output to input connections and routing paths, and will be updated after each new connection is made for an output to input selection, as discussed in a similar manner in the rejection of claim 12.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael W. Hoye whose telephone number is **571-272-7346**. The examiner can normally be reached on Monday to Friday from 8:30 AM to 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller, can be reached at **571-272-7353**.

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system, see **http://pair-direct.uspto.gov**. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at **866-217-9197** (toll-free).

Michael W. Hoye
July 25, 2007

ANDREW Y. KOENIG
PRIMARY PATENT EXAMINER